

**BALTIMORE METROPOLITAN PLANNING ORGANIZATION**

**BALTIMORE REGIONAL TRANSPORTATION BOARD  
RESOLUTION #19-7**

**ENDORSE STATE AND FEDERAL INPUTS TO THE FINANCIAL FORECAST FOR  
*MAXIMIZE2045: A PERFORMANCE-BASED TRANSPORTATION PLAN***

**WHEREAS**, the Baltimore Regional Transportation Board (BRTB), as the Metropolitan Planning Organization for the Baltimore region, consists of the cities of Annapolis and Baltimore, the counties of Anne Arundel, Baltimore, Carroll, Harford, Howard, and Queen Anne's as well as the Maryland Department of Transportation, the Maryland Department of the Environment, the Maryland Department of Planning, and Harford Transit; and

**WHEREAS**, the Baltimore Regional Transportation Board adopted the current Baltimore Regional Transportation Plan on November 24, 2015; and

**WHEREAS**, the Baltimore Regional Transportation Board has developed a work scope and timeline to prepare the 2019 Baltimore regional transportation plan, termed *Maximize2045: A Performance-Based Transportation Plan*. A key task in developing the Baltimore regional transportation plan is the determination of estimated revenue available to fund future transportation projects. As required in the May 2016 Metropolitan Transportation Planning Regulations, existing and proposed revenues shall cover all forecasted capital, operating, and maintenance costs; and

**WHEREAS**, the Baltimore Regional Transportation Board has received a financial forecast from the Maryland Department of Transportation (see Attachment 1) that extends to the horizon year of the plan (2045) and reflects future revenue using an inflation rate to reflect "year of expenditure dollars" and that is based on reasonable financial principles; and

**WHEREAS**, this information has been reviewed cooperatively by the Baltimore Regional Transportation Board, the State, and public transportation operators as a basis for developing a financial plan for *Maximize2045: A Performance-Based Transportation Plan*; and

**NOW, THEREFORE, BE IT RESOLVED** that the Baltimore Regional Transportation Board, as the Metropolitan Planning Organization for the Baltimore region, endorses the financial forecast of local, state, and federal funds for use in developing *Maximize2045: A Performance Based Transportation Plan*.

**I HEREBY CERTIFY** that the Baltimore Regional Transportation Board, as the Metropolitan Planning Organization for the Baltimore region, endorsed the aforementioned resolution at its September 25, 2018 meeting.

9-25-18

Date



Michele Pourciau, Chairman  
Baltimore Regional Transportation Board

## **DOCUMENTATION OF ASSUMPTIONS**

**Subject:** Methodology and Assumptions used to derive the 2024 - 2045 Constrained Long-range Transportation Plan

### Total Program Revenues/Expenditures (Operating and Capital):

FY 1981 to FY 2016 figures are actual expenditures from historical records. FY 2017 to FY 2022 figures are from the FY 2017 Transportation Trust Financial Plan and Consolidated Transportation Plan (CTP).

The federal funds received directly by WMATA are **not** included in this exercise.

FY 2023 to FY 2045 projections of state funds use a historical annual average growth rate of 5.3%. Federal fund projections for the same period are based on an average growth rate of 3.0% for Highway and Transit program funds.

### Operating Expenditures:

FY 1981 to FY 2016 are actual expenditures from historical records. Expenditures for FY 2017 to FY 2022 are operating budget projections contained in the current Trust Fund Forecast.

FY 2023 to FY 2045 projections are derived by inflating the previous year with an estimate for the percentage change in CPI-U plus 2%. The Consumer Price Index is a generally accepted measure of inflation. The projected annual change in index figures is based on information received from two economic forecasting firms. Two percent (2%) is added to the forecasted rate to account for the additional operating costs associated with new capital projects.

### Capital – Systems Preservation:

Department records were used to determine the split between systems preservation and major capital projects for FY 1981 to FY 2016. Amounts for FY 2017 to FY 2022 represent the current version of the capital program.

For the period FY 2023 – FY 2045, an annual growth rate of 2.0% is assumed for systems preservation projects, not to exceed 70% of the total program.

### Capital – Major Capital Projects:

Expenditures for major capital projects were derived by subtracting both operating and systems preservation expenditures from the total program expenditures for each year.

### Baltimore Area – Percentage of Major Capital Projects:

Total capital figures from FY 1981 to present were split into surface and non-surface. Surface included highway (SHA) and transit (MTA, MARC, and WMATA) costs. Non-surface included the Maryland Port, Aviation, and Motor Vehicle administrations plus the Secretary's Office expenses.

The surface / non-surface data and the system preservation / major capital data were combined, analyzed, and evaluated to produce estimates of the percentage of Maryland major capital projects associated with surface transportation for the various time periods.

Surface capital in the Baltimore region was derived by adding the expenditures for all of MTA (excluding LOTS and non-Baltimore region park-and-ride expenditures), one-half of MARC and that portion of SHA that pertained to the region (Anne Arundel, Baltimore, Carroll, Harford, and Howard counties).

These Baltimore-specific figures were used to derive estimates of Baltimore surface major capital projects. These figures, when used with the above-mentioned projections, produce the estimates shown for Baltimore as a percent of Total Surface Major Capital.

## MDOT Operating and Capital Expenditures – Statewide

History, Program, and Forecast

(Millions of Dollars)

<b>Fiscal Year</b>	<b>Operating</b>	<b>Systems Preservation</b>	<b>Operating and Systems Preservation</b>	<b>Major Capital</b>	<b>Statewide Total</b>
1981	\$265	\$111	\$ 376	\$247	\$ 623
1982	\$287	\$136	\$ 423	\$236	\$4,599
1983	\$322	\$164	\$ 486	\$284	\$4,822
1984	\$352	\$167	\$ 519	\$246	\$5,053
1985	\$385	\$204	\$ 589	\$319	\$5,294
1986	\$428	\$234	\$ 662	\$403	\$5,549
1987	\$441	\$264	\$ 705	\$506	\$5,816
1988	\$478	\$260	\$ 738	\$615	\$6,097
1989	\$508	\$227	\$ 735	\$677	\$6,393
1990	\$551	\$270	\$ 821	\$760	\$6,702
1991	\$591	\$268	\$ 859	\$773	\$7,028
1992	\$577	\$187	\$ 764	\$542	\$7,369
1993	\$638	\$254	\$ 892	\$418	\$7,728
1994	\$689	\$279	\$ 968	\$393	\$8,104
1995	\$709	\$400	\$1,109	\$497	\$8,501
1996	\$784	\$391	\$1,175	\$465	\$1,640
1997	\$770	\$417	\$1,187	\$493	\$1,680
1998	\$808	\$451	\$1,259	\$411	\$1,670
1999	\$868	\$515	\$1,383	\$420	\$1,803
2000	\$913	\$476	\$1,389	\$455	\$1,844
2001	\$979	\$578	\$1,557	\$632	\$2,189
2002	\$1,045	\$612	\$1,657	\$772	\$2,429
2003	\$1,158	\$620	\$1,778	\$772	\$2,550
2004	\$1,178	\$619	\$1,797	\$762	\$2,559
2005	\$1,237	\$714	\$1,951	\$780	\$2,731
2006	\$1,303	\$729	\$2,032	\$793	\$2,825
2007	\$1,396	\$724	\$2,120	\$701	\$2,821
2008	\$1,488	\$766	\$2,254	\$680	\$2,934
2009	\$1,527	\$974	\$2,501	\$368	\$2,869
2010	\$1,583	\$957	\$2,540	\$275	\$2,815
2011	\$1,548	\$908	\$2,456	\$325	\$2,781
2012	\$1,572	\$1,096	\$2,668	\$366	\$3,034
2013	\$1,638	\$1,154	\$2,792	\$416	\$3,208
2014	\$1,843	\$1,324	\$3,167	\$477	\$3,644
2015	\$1,859	\$1,438	\$3,297	\$603	\$3,900
2016	\$1,917	\$1,389	\$3,306	\$806	\$4,112
2017	\$1,947	\$1,560	\$3,507	\$1,123	\$4,630
2018	\$2,030	\$1,580	\$3,610	\$1,071	\$4,681
2019	\$2,080	\$1,557	\$3,637	\$1,005	\$4,642
2020	\$2,131	\$1,475	\$3,606	\$687	\$4,293
2021	\$2,181	\$1,391	\$3,572	\$483	\$4,055
2022	\$2,264	\$1,449	\$3,713	\$400	\$4,113
2023	\$2,454	\$1,284	\$3,738	\$550	\$4,288

<b>Fiscal Year</b>	<b>Operating</b>	<b>Systems Preservation</b>	<b>Operating and Systems Preservation</b>	<b>Major Capital</b>	<b>Statewide Total</b>
2024	\$2,592	\$1,259	\$3,851	\$540	\$4,391
2025	\$2,696	\$1,332	\$4,028	\$571	\$4,599
2026	\$2,811	\$1,408	\$4,219	\$603	\$4,822
2027	\$2,924	\$1,490	\$4,414	\$639	\$5,053
2028	\$3,043	\$1,575	\$4,618	\$676	\$5,294
2029	\$3,176	\$1,661	\$4,837	\$712	\$5,549
2030	\$3,313	\$1,698	\$5,011	\$805	\$5,816
2031	\$3,451	\$1,732	\$5,183	\$914	\$6,097
2032	\$3,597	\$1,766	\$5,363	\$1,030	\$6,393
2033	\$3,754	\$1,802	\$5,556	\$1,146	\$6,702
2034	\$3,911	\$1,838	\$5,749	\$1,279	\$7,028
2035	\$4,079	\$1,874	\$5,953	\$1,416	\$7,369
2036	\$4,257	\$1,912	\$6,169	\$1,559	\$7,728
2037	\$4,433	\$1,950	\$6,383	\$1,721	\$8,104
2038	\$4,633	\$1,989	\$6,622	\$1,879	\$8,501
2039	\$4,837	\$2,029	\$6,866	\$2,052	\$8,918
2040	\$5,042	\$2,070	\$7,112	\$2,242	\$9,354
2041	\$5,258	\$2,111	\$7,369	\$2,444	\$9,813
2042	\$5,475	\$2,153	\$7,628	\$2,667	\$10,295
2043	\$5,717	\$2,196	\$7,913	\$2,889	\$10,802
2044	\$5,963	\$2,240	\$8,203	\$3,131	\$11,334
2045	\$6,228	\$2,285	\$8,513	\$3,383	\$11,896
<b>Total 1981-2045</b>	\$140,912	\$70,943	\$211,855	\$102,354	<b>\$493,183</b>

## Baltimore Metropolitan Area – Percentage of Major Capital

Forecast (2024-2045)

(Millions of Dollars)

Percentage of Surface Major Capital Statewide, 1981-2016: 86.4%.

Percentage of Surface Major Capital for Baltimore Region, 1981-2016: 40.3%.

Apply same percentage to 2024-2045 period to determine forecast of revenues available for major capital projects.

<b>Fiscal Year</b>	<b>Statewide Major Capital Funds</b>	<b>Statewide Surface Percentage (86.4%)</b>	<b>Statewide Private Funds</b>	<b>Total Statewide Surface Available</b>	<b>Total Baltimore Region Major Capital Funds (40.3%)</b>
2024	\$540	\$467	\$23	\$490	\$197
2025	\$571	\$493	\$23	\$516	\$208
2026	\$603	\$521	\$23	\$544	\$219
2027	\$639	\$552	\$23	\$575	\$232
2028	\$676	\$584	\$24	\$608	\$245
2029	\$712	\$615	\$24	\$639	\$258
2030	\$805	\$696	\$24	\$720	\$290
2031	\$914	\$790	\$24	\$814	\$328
2032	\$1,030	\$890	\$24	\$914	\$368
2033	\$1,146	\$990	\$25	\$1,015	\$409
2034	\$1,279	\$1,105	\$25	\$1,130	\$455
2035	\$1,416	\$1,224	\$25	\$1,249	\$503
2036	\$1,559	\$1,347	\$25	\$1,372	\$553
2037	\$1,721	\$1,487	\$25	\$1,512	\$609
2038	\$1,879	\$1,624	\$26	\$1,650	\$665
2039	\$2,052	\$1,773	\$26	\$1,799	\$725
2040	\$2,242	\$1,938	\$26	\$1,964	\$791
2041	\$2,444	\$2,112	\$26	\$2,138	\$861
2042	\$2,667	\$2,305	\$26	\$2,331	\$939
2043	\$2,889	\$2,497	\$27	\$2,524	\$1,017
2044	\$3,131	\$2,706	\$27	\$2,733	\$1,101
2045	\$3,383	\$2,924	\$27	\$2,951	\$1,189
<b>Total 2024-2045</b>	<b>\$34,298</b>	<b>\$29,640</b>	<b>\$548</b>	<b>\$30,188</b>	<b>\$12,162</b>

Forecasted \$12,162 million available for major capital projects in the Baltimore region.

# MDOT Operating & Capital Expenditures - Statewide

## History, Program & Forecast

